PIPE DREAMS: WATER, DEVELOPMENT AND THE WORK OF THE IMAGINATION IN ETHIOPIA'S LOWER OMO VALLEY

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ABSTRACT

Ethiopia's lower Omo valley is currently undergoing profound changes, due in part to water development interventions. The state and corporate partners are implementing large dam and irrigation schemes; missionaries are attempting to install safe water supplies. We explore the reception of these projects by local people, and their implications for intergroup relations. Water development schemes, we argue, function as technologies of the imagination, stimulating people to imagine different kinds of futures. These dynamics are illustrated through ethnographic work on the reception of new wells drilled by European missionaries in Nyangatom.

KEYWORDS: Ethiopia, Omo valley, water, development, imagination, pastoralism

INTRODUCTION

In the world's drylands, dreams of the future often involve water being used to transform the landscape. In Ethiopia, government officials and planners see the drylands as a wilderness waiting to be improved by dams and canals, enabling electricity production and irrigated plantation agriculture. Non-governmental organisations and missionaries, meanwhile, promote water improvement projects as solutions for alleviating poverty, promoting gender equality and reducing infant mortality. And in cattle camps and scattered settlements, people who call the drylands

home dream of green pastures and consult their seers to find future waters. In this article, we consider these visions of water-centred development as 'technologies of the imagination' (Bear 2015; Sneath et al. 2009). In this usage, the term 'technology' includes not only material infrastructure but also social practices and processes. Water is especially stimulating for the imagination for two reasons: because it is a limiting factor for the survival and flourishing of humans, plants and animals; and because the means of accessing it are so intimately connected to definitions of community and ways of life.

In the literature on development in Ethiopia, one particular kind of imaginative project – the one described by J.C. Scott (1998) as high modernism – has received a great deal of attention (e.g. Abbink 2012; Girke 2013; Mosley and Watson 2016; Turton 2005). While the dam and canal schemes that are currently being used to remake Ethiopia's lower Omo valley clearly invite comparison with the mega-projects analysed by Scott, a focus on the state's viewpoint has the unhappy effect of excluding other, equally important interpretations. The analytic of technologies of the imagination opens up consideration of how water projects fit into other kinds of futures, including those of local people and missionaries.

This article draws on research conducted in the lower Omo valley between 2012 and 2018. In particular, it stems from work in collaboration with a mission station established in Ere in 2013.[1] For six weeks in May and June 2016, one of the authors (Pertaub) was based in the mission and participated in its daily routines. Two research assistants, fluent in Nyangatom and English, provided their services as interpreters in interviews with male elders from the settlement, both individually and in small groups; small group interviews were also conducted with women.[2] The data

from this research were supplemented by a further visit to the region in July and August 2018.

After introducing the Nyangatom, their territory and livelihoods, we explore some of the visions of water and development that contend for attention in the lower Omo. First we consider the perspective of a small community of foreign missionaries as they attempt to mobilise local contributions for a new source of drinking water alongside their mission station in Nyangatom. Second, we review the larger political-economic context within which these local projects are nested, namely the designs of the Ethiopian state, which is seeking to impose a new economic order and new definitions of community on the peoples of the lower Omo. Third, we explore how members of the Nyangatom community are responding to these development schemes, and the kinds of futures they imagine for themselves. Finally, we consider the ways these various initiatives relate to each other, and the implications of thinking of them as technologies of the imagination.

BACKGROUND

The heartland of the Nyangatom lies in the lower Omo valley, in the extreme south-west of Ethiopia. The Nyangatom language is related to that of the Turkana in Kenya, the Toposa in South Sudan and both the Jie and Dodoth in Uganda (the Ateker and Karamajong clusters; Gulliver 1952). Like many of the peoples of this area, the primary identity of Nyanagatom is determined not only by language but also by cultural practices associated with the governance of natural resources in specific locales (Bassi 2011).[3] Nyanagatom livelihoods revolve around mobile pastoralism and agriculture, which they practise on the lower reaches of the Omo river as it

meanders towards Lake Turkana and on the banks of the seasonal Kibish river to the west of the Omo (Alvarsson et al. 1989; Gebre 2014; Tornay 1982, 2001).

Settlements in the Kibish plain, including Ere, the field site of this study, have traditionally served as semi-permanent base camps from which families coordinate the seasonal migrations of their herds. Though specialising in mobile pastoralism, Nyangatom livelihood activities vary according to the season, and around Kibish they include agriculture and hunting and gathering. On the banks of the Omo, by contrast, settlements observe a different seasonal calendar reflecting their specialism in agriculture. On the floodplains either side of the Omo and in clearings inside the meanders, flood-retreat agriculture makes possible multiple harvests of sorghum and maize per year, providing valuable calories at the height of the dry season.[4]

The principal political unit of relevance to the governance of natural resources in Nyangatom is the territorial section, *ekitala*, a corporate group within which access to water and pasture is mediated by the ritual and political leaders of the section, of which the *emuron* (diviner or ritual expert) is the most important (Alvarsson et al. 1989; Tornay 1982, 1998, 2001).[5] Diviners (pl. *emurok*) have historically served as focal points for allegiance and political affiliation, occasionally acting as military leaders and mobilising resistance to colonial authorities (Gulliver 1952; Knighton 2017; Lamphear 1988, 1992).

From the perspective of the state, the Nyangatom constitute an ethnic group or 'nationality' associated with a specific language and a legally demarcated territory. Over the past half century, the Ethiopian state has devoted increased attention to ethnicity as an organising principle in politics (James et al. 2002 Turton 2006). Under the imperial and military governments, the lower Omo was administered from Arba Minch, with the Nyangatom one of many groups in the heterogeneous province of

Gamo-Gofa. Under the post-1994 government, administrative units have increasingly reflected linguistic and ethnic divisions, culminating for the Nyangatom in the creation of an eponymous district (Nyangatom *woreda*) in 2006 (Tornay 2009). Districts are themselves subdivided into *kebele*s ('communities' in Amharic), the most basic unit of local political administration in Ethiopia since the Derg (which ruled from 1974 to 1987). In the context of highland Ethiopia, the term is commonly translated as 'peasant association'; in the lowlands, the English term 'village' is often used by government officials, but in practice, *kebele*s mostly consist of collections of semi-permanent settlements grouped together for administrative convenience. Nyangatom district is officially divided into twenty *kebele*s. Although for the most part each *kebele* is attached to only one territorial section, the term otherwise bears only a tenuous connection to local understandings of political geography.

The slippage between local understandings of community and territory and those recognised by administrators constitutes a challenge for the state's engagement with the Nyangatom, as with other agro-pastoralist peoples. The international borders between Ethiopia, Kenya and South Sudan bisect the traditional seasonal and migratory range of the Nyangatom, and both the waters of the Kibish and the extensive grazing lands on the Kenyan side of the border have become the focus of an ongoing conflict between the Nyangatom and Turkana (Tornay 1993). As a result of conflict in the late 1980s, large numbers of Nyangatom from the Kibish area settled on the slopes of Mount Naita in South Sudan, and have since remained there.[6] Even within Ethiopia, however, many locations important to the Nyangatom are either on the fringes of 'their' district, or entirely outside it. Longolomor, a wet-season grazing area, now lies inside the Omo National Park, annexed by the state for purposes of conservation and tourism. Other parts of Nyangatom territory go unrecognised

apparently on grounds of administrative convenience. For example, Tirga, another important wet-season grazing area which is difficult to access by road, is not formally associated with any of the twenty *kebele*s. Water infrastructure projects have never been implemented in Tirga, although – reflecting different terms of engagement among different departments of local government – livestock vaccination campaigns occur throughout the year.

Provision (or at least promises) of reliable water supplies are one of the main enticements used to encourage permanent settlement and hence a closer alignment with the state's idea of what communities should look like and how they should behave.[7] In 2012, four *kebele*s in Nyangatom were selected for a formal process of villagisation, and families were encouraged to settle in planned villages laid out to a regular plan (FDRE 2012).[8] One of the attractions of resettlement was the provision of water piped from the Omo river, via a treatment plant, to taps located in the middle of the villages. In other parts of Nyangatom, particularly in pastoralist areas along the Kibish, the government relies on a looser package of services to encourage permanent settlement, including schools, health posts, food-aid distribution centres and veterinary clinics.

Ere, the field site of this study, is a semi-permanent pastoralist settlement on the Kibish plain, belonging to the Flamingo (*ngikapung*) territorial section; Ere also serves as the name for a *kebele* in the government's administrative structure. Although the climate of the region is often characterised as arid, surface water is abundant in Ere during the wet season – roughly from March to June – when the plain is dotted with ponds and small lakes, and at the height of the rains the River Kibish flows to an inland delta to the south (Alvarsson et al. 1989.[9] During the dry season, however – roughly from July to January – the only water sources in the area are wells

dug by hand in the dry bed of the Kibish. Watering animals at this time of year is a lengthy and labour-intensive process that requires careful coordination between herd owners, families and stock associates. For domestic use, members of the territorial section can claim access from any water source; effectively, however, their ability to exercise this right is limited by the distance they need to travel. Particularly in the dry season, risk of attack by Turkana makes the collection of water from the Kibish by women hazardous.

During a typical year, cattle would migrate to Tirga as the dry season deepened, where they were tended by young adults living in temporary cattle camps, and return to Ere during the wet season (Gebre 2014; Tornay 1982, 2001). However, in recent years, Ere, together with the other settlements on the plain, has become drier (Tröger et al. 2011), and with limited rainfall, the plain seldom provides enough grass to sustain herds of cattle even in the wet season. In the recent past, therefore, it has been principally the elderly and women with young children who live permanently in Ere, and for the majority of the year only small stock – sheep and goats – are kept there. It is this community to which missionaries were directed by the local administration in 2012, and it was there that they sought to implement a social and spiritual experiment with the aid of water technology.

THE VISION OF THE CONGREGATION OF ST JAMES

Missionary activity among the Nyangatom dates back to the Swedish Philadelphia Church Mission (SPCM), established in 1971. Water was a major focus of the Swedish mission, with the SPCM installing artificial irrigation systems and solar-powered pumps in the early 1980s (Alvarsson et al. 1989). Although the SPCM left in

the mid 2000s, missionary activity in Nyangatom resumed in the early 2010s in the guise of the Congregation of St James (CSJ), a Catholic order drawing recruits from Europe.[10] In Kenya, the CSJ had developed a reputation for its practical ministry focused on water infrastructure projects including boreholes, rock dams and earth pans. In 2012, two priests from the CSJ approached the Nyangatom district administration to ask permission to establish a new mission station in southern Ethiopia, and were directed to Ere.

Water technology was fundamental to the CSJ mission from the start, both in terms of the viability of a permanent mission station, and in terms of the missionaries' work to improve the lives of the Nyangatom. The priests dreamt of a self-sufficient mission that would showcase sustainable water technology in an arid land, and which would embody Christian commitments to the environment and to social justice, as affirmed in the papal encyclical, *Laudato Sí* (Francis 2015). They would begin by providing the people of Ere with their first year-round, protected domestic water supply, thereby saving women the drudgery of travelling to the Kibish river. Clean water would lead to better hygiene, better health and reduced child mortality. A central water supply would also increase human security, as it would be safe from the threat of attack by the Turkana on the other side of the river. Freed from the time-consuming duties of water collection, young girls would be able to attend school and women would have more time and energy to devote to other activities. All manner of positive social changes would follow.

Another development industry vision, community-based management (CBM), influenced the fathers as they brought in drilling equipment from Kenya to assist in sinking exploratory boreholes in 2013. For the purposes of this article, the most salient aspects of CBM are its insistence on the creation of bounded groups of water

users (the 'community') centred around the exploitation of a water resource, and the idea of making these groups at least partly responsible for the costs of building and maintaining the infrastructure, in this case the boreholes. According to this model, the sustainability of water projects in the longer term depends upon user groups being able to exclude outsiders and levy charges (and fines) on insiders.[11]

At Ere the idea of bounded, separate communities of water users was emphasised from the outset. Of the two deep boreholes drilled, one was to be a private water supply for the new mission station: located inside a thorny perimeter fence and powered by a diesel pump, it was set aside for the exclusive use of the missionaries and their (mostly foreign) visitors. The other borehole, located in an open field and fitted with a hand pump, was designated the 'community' well, to serve as a source of water for domestic use for the residents of Ere. A local man, whom the missionaries referred to as the 'chief', was invested with the responsibility of ensuring that the source was appropriately managed, and, in keeping with CBM principles, the missionaries asked for a contribution of seventy goats in lieu of payment towards the cost of the well (a figure derived from their experience in Kenya). The purpose behind this payment was to engender a sense of ownership among the locals.[12]

The technology – both the physical infrastructure (the boreholes and pumps) and the social arrangements associated with them (the segregation of different user groups and the request for contributions) – provoked unexpected responses from the local population. In 2016, more than two years after the installation of the boreholes, only four of the seventy goats had been handed over, and the 'chief' – viewed by his peers as an *emuron* or diviner, but without effective powers to extract contributions from community members – was evasive about future payments. Despite having a dedicated pump of their own, the missionaries noticed that on most mornings a queue

of women would form outside the mission gate holding jerry cans, waiting expectantly for water from the well inside the perimeter fence of the mission station. Some of them seemed uncertain how absolute the prohibition on their using the mission's water was; others were simply unaware of the rules. They almost always waited in vain: the missionaries wanted to send a clear signal about usage and ownership of the wells.

Concerned that the locals did not appreciate the efforts that they had made on their behalf, the missionaries called a meeting to clear up the misunderstandings. Under the shade of the tree where the community traditionally held meetings, the locals voiced their discontent. The pump to which they had access frequently broke down and, since the borehole was deep, pumping by hand required a great deal of effort. The pump's location was also unfavourable: there were no shade trees nearby, so people were exposed to the sun as they pumped, and to get to it some community members had to take a significant detour from their usual herding routes. Denial of access to the more conveniently located mission water supply appeared to the women to be an arbitrary and unfair rule imposed by the priests. One woman chided the missionaries as follows: 'We gave you the land to settle, we provided shelter and a place to stay in our community. We live together and we have to stay together. We help you. Why don't you help us too? When we are thirsty, open your gates and give us water!'

Local people believed that if the missionaries really wanted to be considered part of the community, as their Christian rhetoric suggested, then they should take on the associated responsibilities – indeed, their responsibilities should be greater than others because their resources were far greater. Flexible and reciprocal access rights to water were part of an inclusive ideology of sharing that underlies the Nyangatom

moral economy.[13] Fixed, exclusive water-user groups represented an affront to this system.

As described above, the Nyangatom ethic of shared access to natural resources is closely related to the mobility that is so crucial for their livelihoods. It enables people and animals to move freely across the landscape to take advantage of spatially and temporally variable resources. But the connections between mobility, access to resources and cultural and political identity are not immediately visible to outsiders – to development practitioners, to missionaries or to state officials. Changes in access to water resources, because they are intimately tied to ways of life, can become a key site of contestation over the shape of communities and economies, and the relations between neighbouring peoples. If establishing a new well could so fundamentally affect the daily routines and opportunities of a community (as both the missionaries and the locals understood), then altering the tempo of the nearby Omo and digging new canals, as the engineers and planners working with the Ethiopian state were doing, could usher in still greater changes.

THE GOVERNMENT'S VISION

The government's vision for the lower Omo valley, as announced by the late prime minister Meles Zenawi in 2011, is of a wholesale transformation through capital-intensive, state-driven mega-projects involving hydro-engineering at the level of the river basin (Abbink 2012; Fratkin 2014). The government envisage radically changing the Omo valley from a dynamic, disequilibrium system supporting a mosaic of small-scale livelihood strategies, to what would effectively be a cascade of storage sumps that efficiently convert water into electricity or commodities such as sugar. Dams on

the upper and middle reaches of the Omo would generate electricity, and also allow the river's flow to be regulated, enabling large-scale irrigation downstream. The dispersed settlements of the Nyangatom and their neighbours would be replaced by permanent villages. The livelihoods of the inhabitants of these villages would be based on irrigated agriculture, and villagers would be fully integrated into the Ethiopian state and provided with education, health care and piped drinking water. In this vision, local people would abandon pastoralism and become contract farmers for the sugar plantations (Kamski 2016a, 2016b). The project would finally enable the state to incorporate the lowland periphery, the culmination of more than a century of state-building efforts (Markakis 2011).

The state's plan is informed and legitimised by narratives and imagery that devalue and misrepresent existing agro-pastoralist livelihoods in the lower Omo. Just as the missionaries of the CSJ misunderstood the logic of mobility for Nyangatom livelihoods, so too in the government's plans is the rationale of mobility in pastoralist systems unrecognised (Girke 2013; Turton 2011). Pastoralists are seen as roaming aimlessly; to the extent that their livelihoods are productive they are seen as irrationally attached to the maximisation of their herds. Crucially, the fundamental importance of flood-retreat agriculture for agro-pastoralist livelihoods across the region is consistently overlooked.

When people in positions of power so misunderstand things, they pose a risk to others. In river-basin engineering, the ecological conditions that make possible the livelihoods of hundreds of thousands of people may be eliminated by the construction of a single dam. So it was that in 2015 the annual flooding of the Omo was ended as the reservoir behind the Gibe III dam reached capacity. By the summer of 2016 flood-retreat harvests had become impossible. In the following seasons, Nyangatom

communities located along the banks of the Omo were affected most, because settlements here included many families who depended heavily on flood-retreat agriculture, and owned relatively few cattle. But the impact was also felt more widely among communities on the Kibish plain (including Ere) because some of these used to migrate seasonally to the banks of the Omo to share in the harvests from the riverbanks.

Although flood-retreat agriculture was no longer possible in 2016, the replacement advertised by the government – irrigated agriculture fed by a network of canals – was still not available. Against this backdrop, and increasingly dependent on food aid from the government, the Nyangatom were keenly aware of the fragility of their economic and environmental position.[14] The few mission and NGO initiatives in the region were therefore newly important as sources of support.

THE VISIONS OF THE NYANGATOM

The missionaries' visions had conjured into existence a new water infrastructure at Ere; the Ethiopian state and its corporate partners were using hydro-engineering to turn the lower Omo as a whole into a kind of industrial park. In both cases, connections to powerful international networks had allowed them to assemble the resources to act upon their visions. In the context of a changing climate, constraints on access to grazing land and the end of the annual flooding of the Omo, the new water infrastructures in turn inspired dreams and visions among the Nyangatom of Ere. Although there were many ideas in the air, three proposals emerged from the community's conversations, each associated with water projects of a different kind. The first, similar to the government's proposal, was to develop irrigated agriculture

using water from the River Omo. The second idea was to use water infrastructure to support livestock, facilitating a renewed emphasis on mobile pastoralism. The third proposal was to move the base camps of the community from Ere to better watered areas near the Tirga plateau as part of an adaptive strategy of migration that their forebears had resorted to at critical periods in the past.

In Ere, one of the main proponents of permanent settlement was Locoro. To the missionaries, Locoro was the 'chief': head of the *kebele* council, an intermediary between the village elders and external parties.[15] To the Nyangatom in Ere, Locoro was primarily an *emuron*, a traditional diviner or seer. His prophesies drew on his privileged knowledge and articulated visions around which Nyangatom aspirations for the future might coalesce.

In early June 2016, Locoro presided over a haruspicy, a divination ceremony following the sacrifice of a goat. The goat's intestines were laid out on a bed of acacia leaves like a pancake. Around them, a group of elders huddled in a circle. Locoro inspected the entrails carefully: he pointed, prodded, rubbed a nodule, lifted a flap of fat and probed the arteries below. When he spoke the others listened attentively. 'The rains will fail', he said, 'and there will be hunger'. Later Locoro explained the rationale for his prediction:

> There is no harvest on the Omo any more. People are becoming more and more dependent on the government for food and water. That's why we're asking outsiders like the mission to bring water from the ground. In the future, the Nyangatom will have to settle down and change from pastoralism to agriculture.

Locoro seemed resigned to the prospect of the Nyangatom giving up their herds and becoming dependent on the government and other agencies. As *kebele* chairman, he was well informed about the government's plans for the lower Omo, including the Kuraz sugar estates. He had attended government-sponsored workshops and experience-sharing events throughout the region. On other occasions he had commented on the increasing aridity of the plain around Ere and the difficulty of finding pasture and practising rain-fed agriculture, which he attributed to a changing climate. Events seemed to be conspiring against the Nyangatom and the life they had known.

Others were more optimistic, but the missionaries' tendency to negotiate with the community via Locoro meant that it was difficult to get a hearing for alternative ideas. Interviews conducted by one author (Pertaub) therefore presented an opportunity for people to get their ideas to the missionaries without the mediation of the *emuron*. Some of them promoted the more original idea of using a new water infrastructure to sustain their pastoralist livelihoods. Reflecting widespread biases against pastoralism, no water interventions in the district (whether implemented by the government, missionaries or NGOs) had ever been explicitly designed for livestock. But digging ponds along the transhumance routes between wet- and dry-season grazing areas, they pointed out, would allow animals to be watered in the dry season, and make it possible to open up previously inaccessible pastures.[16]

Another proposal was to migrate from Ere to the north and west, relocating their base camps, and some people petitioned the mission for a water infrastructure project to support this move. Nakom (the first wife of a senior elder) drew a stark contrast between the conditions they used to enjoy in Ere and those they faced now:

> When I was a child, life was good. There were always cattle here at this time of year. Now that's all changed: it's too hot and there is no grass. We are planning to move; we are all discussing it. Our future isn't here on the plain – it's in the mountains to the west. We can settle there with our animals. There is grass for cattle, and when the Kibish river floods we can cultivate. We will have lots of milk and butter. No more baboon food for us!

By 'baboon food', Nakom meant the food aid distributed by the government. By staying in a place where it was impossible to maintain their herds, she implied, the people of Ere were consigning themselves to the status of animals. By moving to a new location closer to the Tirga mountains, on the other hand, they could secure a more decent way of life. If the mission relocated with them, they could have boreholes, ponds and other services there, even if the location was outside the government's established area of operations, and outside the Nyangatom's officially designated territory.

During the main period of fieldwork in 2016, the community of Ere did not reach a consensus regarding these three proposals. Opinions and plans changed frequently with incoming news. There was no mobile telephone reception in the area, and visitors to Ere were assailed with requests for information as soon as they arrived.[17] In the afternoons the elders debated under the shade tree, and discussions continued long into the night at gatherings in the clearings in the middle of each settlement. Some of the news seemed to bear out Locoro's predictions. Relatives living by the Omo reported that the river was not rising; as a result, nobody from Ere left to cultivate on the Omo, as they usually did at that time of year. Nor did farming in the fields around the settlements offer much hope. The rains, which had begun to

nourish the maize and sorghum, had failed at the last moment, and within a week, the crops had turned yellow and withered. The food aid distributed through the local school became increasingly important, and disputes erupted over who should have access to it. In this atmosphere of uncertainty and confusion, water infrastructure became a lightning rod for hopes as well as frustrations and fears.

REFLECTIONS

In this article we have explored how water development projects in the lower Omo valley feature in the world views of different actors, how they function as technologies of the imagination. The projects in question are diverse, ranging from the digging of simple ponds, to well-drilling and to gargantuan dam and irrigation schemes. Also diverse are the ideological framings that different actors bring to bear on these projects, including high modernism, a particular model of Christian community and the egalitarian ideals of an agro-pastoralist culture. These ideologies are not easily reconciled with each other, yet all imply and depend upon certain patterns of resource distribution. The contestation that emerged from the water projects we have investigated in Nyangatom therefore relates to broader issues of alliance and resistance.

The first issue concerns the kinds of alliance that can spring up between parties with different agendas and visions of the future. While the missionaries saw themselves as serving the local community, the projects they pursued made them unwitting participants in the government's project of creating a settled, more easily governable population (see Scott 1998). To some observers, this might appear to be a 'clumsy solution' to the problem of community water supply – that is, a solution

emerging from collaboration and compromise among groups with contrasting sets of values (cf. Verweij et al. 2006). But to many among the Nyangatom, settling permanently in a place where their cattle cannot survive is too high a price to pay for a new water supply. Doing so would greatly reduce their resilience to surviving future political or ecological shocks; it would also mean giving up their identity as a people.[18]

The second issue concerns the kinds of resistance that may be employed by people who are ill-served by development projects (see Oliver-Smith 2010). We consider the question of resistance in relation to two features of the mission water projects that were most unpopular: the setting aside of one well exclusively for the use of the mission (compounded by its furnishing with a diesel pump, which added to the impression of unfairness) and the request for contributions. The inequity in the provision of water for the mission and for the community loomed largest for the women, for whom the inferiority of the hand pump and the denial of water from the mission well was a daily affront.[19] In this context, the fact that some women waited outside the mission compound all day for water could be seen as a form of protest: a way of making their feelings visible to the priests.

The second sticking point was the priests' request for contributions for the community well. The locals' response to this was informed by a precedent, since the Swedish missionaries who preceded the CSJ had never asked the community to make any payments towards the well or irrigation initiatives they had sponsored in Nyangatom. This influenced local expectations of the missionaries, and no amount of talk about the responsible management of resources would therefore convince them of the fairness of paying for the well. But withholding contributions was also a strategic form of resistance. Non-payment opened up the discussion of alternatives; it could

function as a tool for realigning the missionaries' activities with local priorities. By refusing to pay, they might bring the missionaries around either to supporting their plan to migrate to Tirga, or to helping create more opportunities for watering their livestock along their usual transhumance routes.

If this was their plan, it seems to have worked. At the time of our return visit in 2018, the missionaries had invited engineers from Europe to help create large ponds and small rock dams in the mountains south of Tirga, where herds might be watered during the dry season. (These projects, the missionaries reported, were more difficult to obtain funding for than community wells; they did not fit the standard model of water interventions favoured by the development industry.) The district administration, meanwhile, had persuaded Chinese contractors to dig ponds alongside the road they were building between Kangaten and the site of a sugar factory. These developments serve as evidence of the ability of people to wring concessions from missionaries and the local administration.

Unfortunately, the designs of the mega-projects that are being pursued alongside these smaller initiatives in the Omo valley are more difficult to change. The missionaries and local officials are accessible; higher-level officials and corporate executives are not. And whereas the missionaries and local administrators appear to be invested in working alongside the Nyangatom in the long term, it is unclear whether higher-level officials or the contractors whom they employ identify with the locals at all. In a real sense, the planned mega-project is not built with the people of the lower Omo in mind, but for others, outside the valley. For the state, the dam and plantation schemes send signals about the government's commitments and its potential to deliver to its constituents at the political centre (Verhoeven 2002); they shore up the nation as an imagined community (Anderson 1983). As with Egypt's

Toshka scheme, which would involve the creation of a second Nile in Egypt's Western Desert (Bush 2007; Mitchell 2002: 272-303), or the Meroe dam in Sudan (Verhoeven 2015), the damming of the Omo and the conversion of the lower reaches of the valley into sugar plantations does imaginative work. It suggests a common enterprise: the national struggle against poverty, and the taming of the frontier.

To the Nyangatom and other people of the lower Omo, meanwhile, the enterprise looks less like a war against poverty and more like a war against their way of life. That the state could end the annual flood of the Omo was previously unthinkable; that it should do so and then defer its promises to provide alternative livelihoods has strengthened their distrust of the state. In this context, enlisting the support of allies – including their kinsmen in South Sudan, the missionaries and the few Nyangatom who have positions of influence in the government or in the sugar projects – assumes a new urgency. They are fully aware that the struggle to create new places, new identities and new ways of life happens on an uneven playing field. As the state and its corporate partners muster allies in an attempt to realise their visions, the Nyangatom are doing the same.

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[1] Ere is a pseudonym. In the Nyangatom language, *ere* refers to any semi-permanent pastoralist settlement.

[2] The study protocol was reviewed and approved by the Research Ethics Committee at University College London.

[3] Since the 1990s, language has been the principal criterion for the identification of ethnic groups (formally referred to as nations and nationalities) in Ethiopian law.

[4] Flood-retreat (sometimes referred to as flood-recession) agriculture involves planting crops after the inundation of land in a floodplain, capitalising on the water and silt deposited by the river. It has historically been a particularly valuable part of the livelihood portfolio of the peoples of the lower Omo, as described by Almagor (1978), Girke (2013), Matsuda (1996), Tornay (2001) and Turton (1979).

[5] There are seven territorial sections among the Nyangatom, each named after a bird. Ere is part of the Flamingo territorial section.

[6] Estimates by the administrators of Nyangatom district put the number of people resettled in South Sudan at around 30,000.

[7] Government policy in pastoralist areas favours 'voluntary sedentarisation' and livelihood diversification away from pastoralism (Nassef and Belayhun 2012).

[8] The *kebele*s targeted for villagisation were Ayepa, Napotokoit, Shonkora and Napusmuria.

[9] Very short rains sometimes also fall in October, although locals report that this is happening increasingly rarely.

[10] CSJ is a pseudonym.

[11] The principles of CBM were first set out in a series of influential World Bank reports (Briscoe and Ferranti 1988; Katz and Sara 1997). The emerging paradigm was greatly influenced by 'new institutional economics', represented by the work of Ostrom (1990) and North (1990). CBM principles also inform the design of water development initiatives in Ethiopia's Pastoral Community Development Programme (PCDP), funded by the World Bank.

[12] This approach is also common in pastoralist areas of Ethiopia. In their analysis of the water development sector in the drylands of Ethiopia, Nassef and Belayhun (2012) identify both community contributions and engagement with customary leadership institutions as examples of good practice.

[13] For comparison, see contributions to Widlok and Tadesse (2005) on egalitarian social systems.

[14] As this article went to press in 2018, the Nyangatom of Ere were still waiting for access to irrigation. A canal under construction in connection with the development of the Omo-Kuraz Sugar Factory Number 5 would, according to the factory director, provide irrigated land for cultivation for any and all Nyangatom who wished to farm. The district administration, however, were unable to say when these plots would be allocated. Upstream in Salamago district (directly north of Nyangatom), where subsistence farming on irrigated plots had been attempted from 2013, extremely small allotments (0.25 hectares per household) and difficulty accessing water for irrigation

from the sugar corporation had led to increased food insecurity (Stevenson and Buffavand 2018).

[15] Personal names used here are pseudonyms.

[16] At the time of the study, herders had to stay close to the Kibish river because wells in the river bed were the only dependable sources of water along their transit corridor. However, given the proximity of the Turkana on the opposite bank of the river, maintaining these wells was both labour intensive and dangerous.

[17] A mobile phone mast in Kopriay *kebele* became active in June 2016, but none of the pastoralists in Ere had a phone. Apart from visitors and returning residents, the two-way radio in the police station was the settlement's only telecommunications link.

[18] Fixed, inflexible boundaries around water infrastructure installations pose a serious challenge for water development projects among pastoralists more widely. See e.g. Schnegg and Bolligg (2016) for a discussion of water-user associations and boreholes in Namibia.

[19] Although the missionaries were living very simple lives by comparison with their compatriots in Europe, the people of Ere were keenly aware that the priests were wealthier than they, and that it was within their power to share more of what they had.